

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-028272**Date Inspected:** 25-Aug-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job site**CWI Name:** Salvador Merino**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

Quality Assurance Inspector (QAI) Rodney Patterson was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

The QAI observed ABF/JV qualified welder Guo Wu Chen #1556 performing Carbon Arc Gouging (CAG) for the repair of the deck panel drop-in splice designated as 13E-E2.4. The ABF/JV QC inspector Salvador Merino was observed performing magnetic particle testing (MT) in way of the repair excavations at the following locations,

Weld 13E-E2.4

Y=170 Depth 13, Width 20mm, Length 100mm

Y=275 Depth 10, Width 20mm, Length 100mm

Y=660 Depth 10, Width 20mm, Length 120mm

The ABF welder Guo Wu Chen was observed later in the shift performing Shielded Metal Arc Welding (SMAW) in the 4G position utilizing the Caltrans approved Welding Procedure Specifications ABF-WPS-D1.5-1004-Repair at the locations previously noted. The weld and surrounding area was brought to a temperature of 325°F by the use of inductions heaters and maintained throughout the welding process.

**Ultrasonic Testing (OBG 13E)**

This QA performed verification Ultrasonic Testing (UT) on Complete Joint Penetration (CJP) deck panel drop-in flange connection for lift 13W. The weld was previously tested and accepted by QC Ultrasonic technicians in

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accordance with AWS D1.5-2002, section 6, table 6.3. The QAI's findings are as follows;

## Lift 12E Transverse Deck Splice (Weld No. 12E/13E-A1.1)

The QAI performed 50% verification of this weld. A total of one (1) rejectable indication was observed by the QAI at the time of inspection while utilizing scanning pattern D. The indications discovered by the QAI were confirmed visually after the excavation by ABF QC inspector Salvador Merino.

## Lift 12E Transverse Deck Splice (Weld No. 12E/13E-A1.2)

The QAI performed a minimum of 10% verification of this weld between Y=0~Y=500. No rejectable indications were found at the time of inspection.

## OBG 13E/14E Deck Drop-in (13E/14E-G)

This QA randomly observed ABF/JV QC inspector Bernard Docena performing Ultrasonic Testing (UT) of the edge plate field splice between lift 13 and 14 East. The locations ultrasonically tested were in way of repairs performed and completed more than 24 hours prior. The following locations were tested;

Y=50 Rejectable indication found at a depth of 9mm.

The ABF welder Wai Kitlai was observed performing Shielded Metal Arc Welding (SMAW) in the 4G position utilizing the Caltrans approved Welding Procedure Specifications ABF-WPS-D1.5-1001-Repair at the E3 longitudinal diaphragm stiffener connections at panel point 124.65. The welds are designated as 14E-PP124.65-E3-A/B and 14E-PP124.65-E3-C/D. The weld and surrounding area was brought to temperature by the use of a gas torch and maintained throughout the welding process. Approval of the engineer for repairs is not required at this location.

The QAI spent a portion of this shift reviewing and documenting the status and completion of various production welding tracking logs for lift 13E-14E drop-in deck work currently in-process. The QA recorded the information on the OBG tracking log.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

## Summary of Conversations:

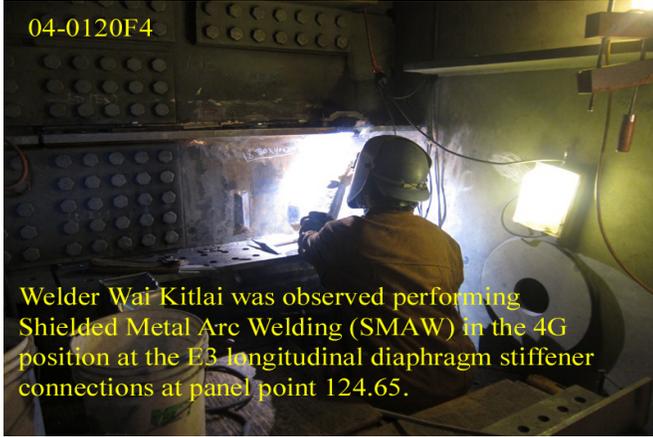
As noted above

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## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

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**Inspected By:** Patterson,Rodney

Quality Assurance Inspector

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**Reviewed By:** Levell,Bill

QA Reviewer